

We claim:

1. A method for providing data security in a device driver for accessing data, the method comprising the steps of:

detecting a file system request;

completing said file system request;

10 receiving return information from said file system request;

determining whether said file system request is for a tag file associated with a secured file; and

15 if so, modifying said return information to reflect a file attribute of the secured file.

2. The method of claim 1 wherein said file attribute is file size.

3. The method of claim 1 wherein the step of determining further comprises the steps of:

20 determining whether said return information identifies a plurality of tag files associated with a plurality of secured files; and

25 if so, modifying said return information to reflect a file attribute of the plurality of secured files.

4. The method of claim 1 wherein the secured file is stored in encrypted form.

5. The method of claim 1 wherein the secured file is stored in a secure virtual file system.

6. The method of claim 1 wherein the secured file is stored on a remote networked device.

7. The method of claim 1 wherein the file system request is to open a file.

8. The method of claim 1 wherein the file system request is to delete a file.
9. The method of claim 1 wherein the file system request is to rename a file.
10. The method of claim 1 wherein the file system request is to query file information.
11. The method of claim 1 wherein the file system request is to set file information.
12. The method of claim 3 wherein the file system request is to find a first matching file.
13. The method of claim 3 wherein the file system request is to find a next matching file.
14. The method of claim 3 wherein the file system request is directory control.
15. A system for providing data security, the system comprising a device driver for accessing data, the device driver operably installed in an operating system on an electronic computer, wherein said device driver:
  - detects a file system request;
  - completes said file system request;
  - receives return information from said file system request;
  - determines whether said file system request is for a tag file associated with a secured file;
  - and
  - if so, modifies said return information to reflect a file attribute of the secured file.
16. The system of claim 15 wherein said file attribute is file size.
17. The system of claim 15 wherein said device driver further

determines whether said return information identifies a plurality of tag files associated with a plurality of secured files; and

if so, modifies said return information to reflect a file attribute of the plurality of secured files.

18. The system of claim 15 wherein said first device driver is a file system monitor.

19. The system of claim 15 wherein the secured file is stored in encrypted form.

20. The system of claim 15 wherein the secured file is stored in a secure virtual file system.

21. The system of claim 15 wherein the secured file is stored on a remote networked device.

22. The system of claim 15 wherein the file system request is to open a file.

23. The system of claim 15 wherein the file system request is to delete a file.

24. The system of claim 15 wherein the file system request is to rename a file.

25. The system of claim 15 wherein the file system request is to query file information.

26. The system of claim 15 wherein the file system request is to set file information.

27. The system of claim 17 wherein the file system request is to find a first matching file.

28. The system of claim 17 wherein the file system request is to find a next matching file.

29. The system of claim 17 wherein the file system request is directory control.

30. A machine-readable medium comprising a device driver program for accessing data, said device driver program comprising:

computer-implemented instructions for detecting a file system request;

computer-implemented instructions for completing said file system request;

5 computer-implemented instructions for receiving return information from said file system request;

computer-implemented instructions for determining whether said file system request is for a tag file associated with a secured file; and

10 computer-implemented instructions for modifying said return information to reflect a file attribute of the secured file, if said file system request is for a tag file associated with a secured file.

15 31. The machine-readable medium of claim 30 wherein the device driver program further comprises:

computer-implemented instructions for determining whether said return information identifies a plurality of tag files associated with a plurality of secured files; and

20 computer-implemented instructions for modifying said return information to reflect a file attribute of the plurality of secured files, if said return information identifies a plurality of tag files associated with a plurality of secured files.

25 32. A computer-implemented device driver for accessing data when operably installed in a computer operating system, said device driver comprising:

means for detecting a file system request;

30 means for completing said file system request;

means for receiving return information from said file system request;

means for determining whether said file system request is for a tag file associated with a secured file; and

means for modifying said return information to reflect a file attribute of the secured file, if said file system request is for a tag file associated with a secured file.

33. The computer-implemented device driver of claim 32 wherein said file attribute is file size.

34. The computer-implemented device driver of claim 32 further comprising:

means for determining whether said return information identifies a plurality of tag files associated with a plurality of secured files; and

means for modifying said return information to reflect a file attribute of the plurality of secured files, if said return information identifies a plurality of tag files associated with a plurality of secured files.